8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.
A. Technology Operation and Concepts: *Students demonstrate a sound understanding of technology concepts, systems and operations.*

GRADES K-2
• How any device "works"—switches, navigation, interface with other devices • Familiarity with primary functions of applications and other technology resources *Focus for instruction:* *Creating opportunities for students to use digital devices in the course of instruction and play, and encouraging their conscious awareness of how devices and applications work to perform tasks for humans.*

Rubric Standard 8.1A K-2		
STRONG	**MODERATE**	**PARTIAL**
WITH OCCASIONAL ASSISTANCE, THE STUDENT • is able to input information into a digital application • can access and independently use a variety of digital applications (at least 3 applications that are designed to perform different functions) in the classroom	*WITH CONSISTENT/FREQUENT/REPEATED ASSISTANCE, THE STUDENT* • is able to input information into a digital application • can access and use a digital application in the classroom	*WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT* • is able to input information into a digital application • can access and, with support, use a digital application in the classroom

Standard 8.1 A K-2				
Criterion: Ability to input information into a digital application				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Is able to input information into a digital application					
Criterion: Ability to access and use digital applications				
Can access and use a digital application in the classroom					
Can access and independently use a variety of digital applications (at least 3 applications that are designed to perform different functions) in the classroom					

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

A. Technology Operation and Concepts: *Students demonstrate a sound understanding of technology concepts, systems and operations.*

GRADES 3-5

- Interactions among tools and resources: for example, devices + peripherals; application + application
- How to access information in a digital environment
- How to create and use data for particular purposes

Focus for instruction:
Integrating the use of digital tools and resources in subject matter learning and assignments; giving students opportunities to discover the resources available in the digital world; teaching students how to research and create in a digital environment.

Standard 8.1 A Rubric 3-5			
DISTINGUISHED	**STRONG**	**MODERATE**	**PARTIAL**
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN - use digital tools to access information to solve different kinds of problems including the creation of databases and use of simple queries to obtain information - choose and use appropriate and increasingly sophisticated digital tools (databases, graphic organizers, spreadsheets and integration across digital applications) to complete an assignment that requires analysis, evaluation and synthesis as part of the final report or presentation. - choose appropriate digital tools to complete any assigned task completely and efficiently .	*WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN* - use digital tools to access information to solve different kinds of problems including the creation of databases and use of simple queries to obtain information - choose and use appropriate and increasingly sophisticated digital tools (databases, graphic organizers, spreadsheets and integration across digital applications) to complete an assignment that requires analysis, evaluation and synthesis as part of the final report or presentation. - choose appropriate digital tools to complete any assigned task completely and efficiently	*WITH CONSISTENT, REPEATED, FREQUENT ASSISTANCE, THE STUDENT CAN* - use digital tools to access information to solve different kinds of problems, including the exploration of databases and use of simple queries to obtain information - complete simple assignments in a digital environment [writing assignment, report, presentation] and include in the final product graphics, symbols and/or pictures - often choose and use the appropriate tool[s] to complete assigned tasks from an array determined by the teacher.	*WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT CAN* - sometimes use digital tools to access information - sometimes complete simple assignments in a digital environment [writing assignment, report, presentation] - sometimes choose and use the appropriate tool[s] for an assigned task.

Standard 8.1 A 3-5				
Criterion: Ability to use digital tools to access information to solve problems				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Can use digital tools to access information					
Can use digital tools to access information to solve different kinds of problems, including the exploration of databases and use of simple queries to obtain information					
Can use digital tools to access information to solve different kinds of problems including the creation of databases and use of simple queries to obtain information					
Criterion: Ability to complete assignments in a digital environment				
OBSERVED BEHAVIOR/ PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Can complete simple assignments in a digital environment [writing assignment, report, presentation					
Can complete simple assignments in a digital environment [writing assignment, report, presentation] and include in the final product graphics, symbols and/or pictures					
Can choose and use appropriate and increasingly sophisticated digital tools (databases, graphic organizers, spreadsheets and integration across digital applications) to complete an assignment that requires analysis, evaluation and synthesis as part of the final report or presentation					

Criterion: Ability to choose and use appropriate tools to complete a given assignment					
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Can sometimes choose and use the appropriate tool[s] for an assigned task.					
Can often choose and use the appropriate tool[s] to complete assigned tasks from an array determined by the teacher.					
Can choose appropriate digital tools to complete any assigned task completely and efficiently					

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

A. Technology Operation and Concepts: *Students demonstrate a sound understanding of technology concepts, systems and operations.*

GRADES 6-8

- Create, format, manipulate, analyze and/or interpret data for publication or reporting in multiple digital applications
- Explore a real-world problem using digital tools to develop an understanding of the issue
- Create or use a digital simulation to explore a real-world problem and possible alternative solutions

Focus for instruction:
Integrating online digital resources and tools with subject matter research and reporting; introducing students to the power of digital simulation to explore issues and problems

Rubric Standard 8.1 A 6-8			
DISTINGUISHED	**STRONG**	**MODERATE**	**PARTIAL**
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN	***WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN***	***WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE, STUDENT CAN***	***WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT***
- demonstrate the ability to use digital tools to explore a real-world problem (chosen and articulated by the student, approved by the teacher), in order to develop an understanding of an issue. - use a digital simulation to explore a current and significant real-world problem with multiple alternative solutions - create and format data for publication and reporting using more than one digital application. - demonstrate ability to manipulate, analyze and/or interpret data and report the results, including an explanation for peers of the analysis process the digital tools enabled. Examples might be a set of queries of existing databases directed at the solution or exploration of a particular problem, creating a new database and appropriate queries to explore stated problems or issues.	- demonstrate the ability to use digital tools to explore a real-world problem (chosen and articulated by the student, approved by the teacher), in order to develop an understanding of an issue. - use a digital simulation to explore a current and significant real-world problem with multiple alternative solutions - create and format data for publication and reporting using more than one digital application. - demonstrate ability to manipulate, analyze and/or interpret data and report the results, including an explanation for peers of the analysis process the digital tools enabled. Examples might be a set of queries of existing databases directed at the solution or exploration of a particular problem, creating a new database and appropriate queries to explore stated problems or issues.	- demonstrate the ability to use digital tools to explore a well-defined real-world problem from a list supplied by the teacher, in order to develop an understanding of an issue. - use a digital simulation to explore a well-defined real-world problem with a limited number of appropriate alternative solutions. - create and format data for publication and reporting. - demonstrate ability to manipulate, analyze and/or interpret data for particular purposes when the purpose and the data sources are provided by the teacher.	- sometimes demonstrates the ability to use digital tools to explore a well-defined real-world problem from a list supplied by the teacher, in order to develop an understanding of an issue. - struggles to use a digital simulation to explore a well-defined real-world problem with a limited number of appropriate alternative solutions. - struggles to create and format data for publication and reporting. - sometimes demonstrates ability to manipulate, analyze and/or interpret data for particular purposes when the purpose and the data sources are provided by the teacher.

Standard 8.1A 6-8					
Criterion: Ability to use digital tools to explore a real-world problem					
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Ability to use digital tools to explore a well-defined real-world problem from a list supplied by the teacher, in order to develop an understanding of an issue.					
Demonstrate the ability to use digital tools to explore a real-world problem (chosen and articulated by the student, approved by the teacher), in order to develop an understanding of an issue.					
Criterion: Ability to use a digital simulation to explore real-world problems with multiple solutions					
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Can use a digital simulation to explore a well-defined real-world problem with a limited number of appropriate alternative solutions.					
Use a digital simulation to explore a current and significant real-world problem with multiple alternative solutions					
Criterion: Ability to create and format data for presentation and reporting					
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Can create and format data for publication and reporting					
Can create and format data for publication and reporting using more than one digital application					

Criterion: Ability to manipulate, analyze and/or interpret data for particular purposes					
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrate ability to manipulate, analyze and/or interpret data for particular purposes when the purpose and the data sources are provided by the teacher					
Demonstrate ability to manipulate, analyze and/or interpret data and report the results, including an explanation for peers of the analysis process the digital tools enabled					

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

A. Technology Operation and Concepts: *Students demonstrate a sound understanding of technology concepts, systems and operations.*

GRADES 9-12

- Create, format, manipulate, analyze and/or interpret data for publication or reporting in multiple digital applications
- Explore a real-world problem using digital tools to develop an understanding of the issue
- Create or use a digital simulation to explore a real-world problem and possible alternative solutions

Focus for instruction:
Integrating online digital resources and tools with subject matter research and reporting; introducing students to the power of digital simulation to explore issues and problems

Rubric Standard 8.1A   9-12

DISTINGUISHED	STRONG	MODERATE	PARTIAL
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN	*WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN*	*WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE, STUDENT CAN*	*WITH SUSTAINED AND SUBSTANTIAL ASSISTANCE, THE STUDENT*
• create a digital portfolio containing personal , academic and career-focused entries, using a variety of digital tools • use multiple digital applications to produce an artifact or report that is designed for a professional or commercial audience and reviewed by peers or professionals • construct a spreadsheet workbook with multiple tabs, and use a mathematical or logical function, a chart[s] and data from all of the worksheets to create a results report • create a report from a relational database, consisting of at least two tables, and describe the process and explain the report results.	• create a digital portfolio containing personal , academic and career-focused entries, using a variety of digital tools • use multiple digital applications to produce an artifact or report that is designed for a professional or commercial audience and reviewed by peers or professionals • construct a spreadsheet workbook with multiple tabs, and use a mathematical or logical function, a chart[s] and data from all of the worksheets to create a results report • create a report from a relational database, consisting of at least two tables, and describe the process and explain the report results.	• create a digital portfolio containing personal and academic entries using at least TWO digital tools • use at least ONE digital application to produce an artifact or report that is designed for a professional or commercial audience and reviewed by peers or professionals • construct a spreadsheet workbook with multiple tabs, and use a mathematical or logical function, a chart[s] and data from all of the worksheets to create a results report	• can create a digital portfolio containing personal and academic entries using at least TWO digital tools • struggles to use at least ONE digital application to produce an artifact or report that is designed for a professional or commercial audience and reviewed by peers or professionals • struggles to construct a spreadsheet workbook with multiple tabs, and use a mathematical or logical function, a chart[s] and data from all of the worksheets to create a results report

Standard 8.1 A 9-12				
Criterion: Ability to create a digital portfolio				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Create a digital portfolio containing personal and academic entries using at least TWO digital tools					
Create a digital portfolio containing personal , academic and career-focused entries, using a variety of digital tools					
Criterion: Ability to use digital applications to produce a professional-quality artifact or report				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Use at least ONE digital application to produce an artifact or report that is designed for a professional or commercial audience and reviewed by peers or professionals					
Use multiple digital applications to produce an artifact or report that is designed for a professional or commercial audience and reviewed by peers or professionals					

Standard 8.1 A 9-12				
Criterion: Ability to construct a spreadsheet workbook and use spreadsheet functions to create a report				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Construct a spreadsheet workbook with multiple tabs, and use a mathematical or logical function, a chart[s] and data from all of the worksheets to create a results report					
Create a digital portfolio containing personal , academic and career-focused entries, using a variety of digital tools					
Criterion: Ability to use and/or create and use a relational database				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Create a report from a relational database, consisting of at least two tables, and describe the process and explain the report results.					

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.
C. Communication and Collaboration: *Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.*
GRADES K-2

• Students use technology tools, including social media, to collaboratively engage in learning activities
  • that involve multiple different media formats
  • with students in other classes, schools, or geographic locations.
 	
Focus for instruction:
Creating opportunities for students to collaborate to accomplish a common goal using digital tools; introducing students to different media formats and their uses

Rubric Standard 8.1C K-2		
2	**1**	**0**
WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE STUDENT CAN • Participate in collaborative digital learning activities with other students across geographies	***WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE STUDENT CAN*** • Participate in collaborative digital learning activities with other students across geographies	**Not Yet Observed:** Student is unable to participate in collaborative digital learning activities even with substantial and sustained assistance

OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Student can participate in collaborative digital learning activities with other students across geographies			

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

C Communication and Collaboration: *Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.*

GRADES 3-5

- Using digital tools and online resources, students interact with other learners from a broad variety of cultures and geographies
    - **to investigate and evaluate** approaches to a world-wide issue,
    - **and present possible solutions** to many audiences in multiple media and formats

Focus of instruction:
Creating opportunities for students to collaborate with other learners outside the classroom to investigate and report on an issue using digital tools

Rubric Standard 8. 1C 3-5

2	1	0
WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE STUDENT CAN • Participate in collaborative digital learning activities with other students across geographies, to investigate and evaluate an issue • Present findings to many audiences in multiple media and formats	*WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE STUDENT CAN* • Participate in collaborative digital learning activities with other students across geographies, to investigate and evaluate an issue • Present findings to many audiences in multiple media and formats	Student is unable to participate in collaborative digital learning activities or present findings even with substantial and sustained assistance

OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Student can participate in collaborative digital learning activities with other students across geographies, to investigate and evaluate an issue			
Student can present findings to many audiences in multiple media and formats			

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.
C Communication and Collaboration: *Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.*
GRADES 6-8

• Using digital tools and online resources, **develop and publish the findings** from collaborative work with other learners
    • from a broad variety of cultures and geographies
    • to investigate and evaluate approaches to a world-wide issue,
    • and present possible solutions to many audiences in multiple media and formats
 	
Focus for instruction:
Creating opportunities for students to collaborate with other learners outside the classroom to investigate an issue and develop and publish a formal report for multiple audiences using digital tools

Rubric Standard 8.1 C 6-8		
2	**1**	**0**
WITH COMPLETE INDEPENDENCE THE STUDENT CAN	***WITH CONSISTENT/FREQUENT/REPEATED ASSISTANCE, THE STUDENT CAN***	***WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE THE STUDENT***
• participate in collaborative digital learning activities with other students across geographies, to investigate and evaluate an issue • present findings to multiple audiences in multiple media and formats • develop an innovative solution to a real-world problem or issue and present these ideas for feedback through social media or in an online community	• participate in collaborative digital learning activities with other students across geographies, to investigate and evaluate an issue • present findings to multiple audiences in multiple media and formats	• can sometimes participate in collaborative digital learning activities with other students across geographies, to investigate and evaluate an issue • struggles to present findings to multiple audiences in multiple media and formats

OBSERVED BEHAVIOR/PERFORMANCE LEVEL	Standard 8.1C 6-8			
	Complete Independence	Frequent Assistance	Sustained Assistance	NOTES
Student can participate in collaborative digital learning activities with other students across geographies, to investigate and evaluate an issue				
Student can present findings to multiple audiences in multiple media and formats				
Student can develop an innovative solution to a real-world problem or issue and present these ideas for feedback through social media or in an online community				

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

C. Communication and Collaboration: *Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.*

GRADES 9-12

- Using digital tools and online resources, **develop and publish the findings** from collaborative work with other learners
  - from a broad variety of cultures and geographies
  - to investigate and evaluate approaches to a world-wide issue,
  - and present possible solutions to many audiences in multiple media and formats

Focus for instruction:
Creating opportunities for students to collaborate with other learners outside the classroom to investigate an issue and develop and publish a formal report for multiple audiences using digital tools

Rubric Standard 8.1 C   9-12

3	2	1	0
WITH COMPLETE INDEPENDENCE THE STUDENT CAN • participate in collaborative digital learning activities with other students and experts across geographies, to investigate and evaluate an issue • collaboratively develop an innovative solution to a real-world problem • publish findings to multiple audiences in multiple media and formats.	***WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE STUDENT CAN*** • participate in collaborative digital learning activities with other students and experts across geographies, to investigate and evaluate an issue • collaboratively develop an innovative solution to a real-world problem • publish findings to multiple audiences in multiple media and formats.	***WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT CAN*** • participate in collaborative digital learning activities with other students and experts across geographies, to investigate and evaluate an issue • collaboratively develop an innovative solution to a real-world problem • publish findings to multiple audiences in multiple media and formats.	Even with substantial and sustained assistance, the student is unable to participate in collaborative digital learning activities or publish findings

	Standard 8.1C 9-12			
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Complete Independence*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Student can participate in collaborative digital learning activities with other students across geographies, to investigate and evaluate an issue				
Student can collaboratively develop an innovative solution to a real-world problem				
Student can publish findings to multiple audiences in multiple media and formats.				

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

    D. Digital Citizenship: *Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.*

GRADES K-2

- Integrate the concept of "ownership" into instructional activities:
  - Books, films, pictures, songs, games, digital applications—all have owners, and we use them in school according to certain rules
  - People may create something and then decide to share it with others—but the owner or creator gets to make the sharing decisions

Focus for Instruction:
Introducing students to the idea of 'ownership' and developing their understanding, over time, of personal ownership and the rules that protect everyone's rights to their own property

This rubric defines the level of understanding of these abstract and complex topics by the end of second grade. Teachers will need to repeatedly integrate the concept of 'ownership' and legal rights to intellectual property—something I wrote or created—as they teach and expose children to books, music, games, all kinds of digital applications over the course of this 3-year grade band. For this reason, the rubric below is presented as a checklist, with important concepts and integrations of those concepts presented in ascending order of difficulty and abstraction

	Consistent understanding	Partial understanding	Not yet observed
Ownership: These are all examples of creations that are 'owned' by someone or some group: ▪ Books and other print media ▪ Songs ▪ Games ▪ Toys ▪ Art ▪ Movies ▪ Videos ▪ Your own school work			
Legal rights ▪ The legal system protects owners			
Sharing • An owner gets to decide whether or not to share something he or she owns			
Creating • The owner of something is not <u>necessarily</u> its creator • Sometimes both the creator or someone else SHARE ownership rights			

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

D. Digital Citizenship: *Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.*

GRADES 3-5

- Include in all appropriate instructional activities reminders to students of the following:
  - People create and own their original work, and we have rules about sharing that work that ensures that the original owner/creator **gets the credit for his/her work**
  - Users of any resource must know how to figure out **what rules apply to the use of the resource,** from the perspective of ownership. Students must be reminded of the importance of **considerations of online safety, online security, and ethical decision-making** in using any digital tools for personal or school purposes.

Focus for Instruction:
Instruction in and reinforcement of the concept of 'ownership' and the consequent rules about using or referring to anything that is owned by another person, including things that are not necessarily visible. Instruction in and reinforcement of the standards for online safety, security and ethics.

Rubric Standard 8.1 D 3-5			
DISTINGUISHED	**STRONG**	**MODERATE**	**PARTIAL**
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN	*WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN*	*WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE THE STUDENT CAN*	*WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT CAN*
- demonstrate an accurate understanding of the rules regarding copyright: citation, identification, quotation, etc. - demonstrate compliance with the rules of privacy and ownership that govern cyber communication, including in social media - demonstrate appropriate behavior related to digital environments: security, ethics, safety, bullying	- demonstrate an accurate understanding of the rules regarding copyright: citation, identification, quotation, etc. - demonstrate compliance with the rules of privacy and ownership that govern cyber communication, including in social media - demonstrate appropriate behavior related to digital environments: security, ethics, safety, bullying	- usually demonstrate an accurate understanding of the rules regarding copyright: citation, identification, quotation, etc. - usually demonstrate compliance with the rules of privacy and ownership that govern cyber communication, including in social media - usually demonstrate appropriate behavior related to digital environments: security, ethics, safety, bullying	- sometimes demonstrate an accurate understanding of the rules regarding copyright: citation, identification, quotation, etc. - sometimes demonstrate compliance with the rules of privacy and ownership that govern cyber communication, including in social media - sometimes demonstrate appropriate behavior related to digital environments: security, ethics, safety, bullying

Standard 8.1 D 3-5				
Criterion: Accurate understanding of the rules of copyright				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates accurate understanding of rules of copyright, i.e., citation, identification, quotation, etc.	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	
Criterion: Compliance with rules of privacy and ownership in cyber communication, including social media				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates compliance with rules of privacy and ownership that govern cyber communication, including social media	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	
Criterion: Appropriate behavior related to digital environments				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates appropriate behavior related to digital environments: security, ethics, safety, bullying	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

D. Digital Citizenship: *Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.*

GRADES 6-8

- Students are expected to
  - **Apply** appropriate online behaviors in regard to online bullying, safety, security and ethical behaviors
  - **Demonstrate** an understanding of the **appropriate uses and the consequences of misuse** of social media

- In all learning activities and products, students must **demonstrate an understanding** of
  - Appropriate digital citation
  - Fair use and Creative Commons
  - Ability to assess the credibility and accuracy of digital content
- Include in all appropriate instructional activities reminders to students of the following:
  - People create and own their original work, and we have rules about sharing that work that ensures that the original owner/creator **gets the credit for his/her work**
  - Users of any resource must know how to figure out **what rules apply to the use of the resource,** from the perspective of ownership. Students must be reminded of the importance of **considerations of online safety, online security, and ethical decision-making** in using any digital tools for personal or school purposes.

Focus for Instruction:
Instruction in and reinforcement of the concept of 'ownership' and the consequent rules about using or referring to anything that is owned by another person, including things that are not necessarily visible. Instruction in and reinforcement of the standards for online safety, security and ethics, particularly in regard to social media.

Rubric Standard 8.1 D 6-8			
DISTINGUISHED	**STRONG**	**MODERATE**	**PARTIAL**
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN • demonstrate compliance with appropriate digital citation • demonstrate understanding of fair use and creative commons • can differentiate the credibility and accuracy of different digital content	***WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN*** • demonstrate compliance with appropriate digital citation • demonstrate understanding of fair use and creative commons • can differentiate the credibility and accuracy of different digital content	***WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE STUDENT CAN*** • usually demonstrate compliance with appropriate digital citation • usually demonstrate understanding of fair use and creative commons • usually can differentiate the credibility and accuracy of different digital content	***WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT CAN*** • sometimes demonstrate compliance with appropriate digital citation • sometimes demonstrate understanding of fair use and creative commons • sometimes can differentiate the credibility and accuracy of different digital content

Standard 8.1 D 6-8				
Criterion: Accurate understanding of digital citation				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates compliance with appropriate digital citation	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	
Criterion: Accurate understanding of fair use and creative commons				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates understanding of fair use and creative commons	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	
Criterion: Ability to differentiate the credibility and accuracy of digital content				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates ability to differentiate the degree of credibility and accuracy of different digital content	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	

8.1   Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

   D. Digital Citizenship: *Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.*

GRADES 9-12

- **Research and define own personal digital footprint**
    - Identify the impact of all aspects of the footprint
    - Evaluate the potential consequences of unauthorized access to personal digital information and the unauthorized dissemination of such information
- **Complete research-based digital projects that**
    - Demonstrate understanding of comparative global policies on filtering and censorship
    - Produce an analysis of the capabilities and limitations of digital resources AND their potential to meet personal, social, lifelong learning and career needs

Focus for Instruction:
Creating the opportunity for students to understand their own digital footprints and their potential consequences; requiring student to complete research-based digital projects that will result in their awareness of multiple perspectives on filtering and censorship and projects that will require them to analyze and evaluate strengths and weaknesses of digital resources in light of their own needs

Rubric Standard 8.1 D 9-12			
DISTINGUISHED	**STRONG**	**MODERATE**	**PARTIAL**
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN • demonstrate compliance with appropriate digital citation • demonstrate understanding of fair use and creative commons • differentiate the credibility and accuracy of different digital content • demonstrate substantial understanding of the consequences of unauthorized electronic access • demonstrate substantial understanding of their own digital footprint, especially in social media applications • analyze the capabilities and limitations of multiple current or emerging technology resources and assess their potential to address personal, social lifelong learning, and career needs.	*WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN* • demonstrate compliance with appropriate digital citation • demonstrate understanding of fair use and creative commons • differentiate the credibility and accuracy of different digital content • substantial understanding of the consequences of unauthorized electronic access • demonstrate substantial understanding of their own digital footprint, especially in social media applications • analyze the capabilities and limitations of multiple current or emerging technology resources and assess their potential to address personal, social lifelong learning, and career needs.	*WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE STUDENT CAN* • <u>usually</u> demonstrate compliance with appropriate digital citation • <u>usually</u> demonstrate understanding of fair use and creative commons • <u>usually</u> differentiate the credibility and accuracy of different digital content • demonstrate some understanding of the consequences of unauthorized electronic access • demonstrate some understanding of their own digital footprint, especially in social media applications • analyze the capabilities and limitations of at least one current or emerging technology resources and assess its potential to address personal, social lifelong learning, and career needs.	*WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT* • <u>sometimes</u> demonstrates compliance with appropriate digital citation • <u>sometimes</u> demonstrates understanding of fair use and creative commons • <u>can sometimes</u> differentiate the credibility and accuracy of different digital content • demonstrates some understanding of the consequences of unauthorized electronic access • demonstrates some understanding of their own digital footprint, especially in social media applications • struggles to analyze the capabilities and limitations of at least one current or emerging technology resources and assess its potential to address personal, social lifelong learning, and career needs

Standard 8.1 D 9-12				
Criterion: Accurate understanding of digital citation				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates compliance with appropriate digital citation	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	
Criterion: Accurate understanding of fair use and creative commons				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates understanding of fair use and creative commons	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	
Criterion: Ability to differentiate the credibility and accuracy of digital content				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates ability to differentiate the degree of credibility and accuracy of different digital content	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	
Criterion: Understanding of consequences of unauthorized electronic access				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates understanding of the consequences of unauthorized digital access	*Some*	*Some*	*Some*	*Some*	
	Substantial	*Substantial*	*Substantial*	*Substantial*	
Criterion: Understanding of own personal digital footprint				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates understanding of own	*Some*	*Some*	*Some*	*Some*	

personal digital footprint, especially in social media applications	Substantial	Substantial	Substantial	Substantial	
Criterion: Ability to analyze and assess current technology resources					
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Analysis of the capabilities and limitations of at least one current or emerging technology resources and assessment of its potential to address personal, social lifelong learning, and career needs					
Analysis of the capabilities and limitations of multiple current or emerging technology resources and assessment of their potential to address personal, social lifelong learning, and career needs					

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.

E. Research and Information Fluency: *Students apply digital tools to gather, evaluate, and use information.*

GRADES K-2

- Use digital resources to explore problems and issues

Focus for Instruction:
Giving students repeated and varied opportunities to use digital tools in their learning and playing, making them conscious of how these tools work and what they can do to help accomplish a goal

Standard 8.1 Strand E Rubric 9-12

Note that the distinction in levels of performance for this strand is based only on the degree of independence with which the student uses the internet to explore and investigate questions and topics of interest.

DISTINGUISHED	STRONG	MODERATE	PARTIAL
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN • use the Internet to explore and investigate questions *[Note connections to Strands A and B]*	*WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN* • use the Internet to explore and investigate questions *[Note connections to Strands A and B]*	*WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE THE STUDENT CAN* • use the Internet to explore and investigate questions *[Note connections to Strands A and B]*	*WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT CAN* • use the Internet to explore and investigate questions *[Note connections to Strands A and B]*

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.
E. Research and Information Fluency: *Students apply digital tools to gather, evaluate, and use information.*

GRADES 3-5

- Use digital resources to explore problems and issues AND **evaluate information sources in terms of**
    - Accuracy
    - Relevance
    - Appropriateness for the task

Focus for Instruction:
Giving students repeated opportunities to use digital resources to accomplish their learning tasks, with particular emphasis on using those tools for research and exploration and learning to evaluate digital information

Rubric Standard 8.1E 3-5			
DISTINGUISHED	STRONG	MODERATE	PARTIAL
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN	*WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN*	*WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE THE STUDENT CAN*	*WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT CAN*
- use digital tools to complete subject matter assignments that require research, filtering, and analysis of information - match information sources and digital tools to the requirements of a specific task	- use digital tools to complete subject matter assignments that require research, filtering, and analysis of information - match information sources and digital tools to the requirements of a specific task	- usually use digital tools to complete subject matter assignments that require research, filtering, and analysis of information - usually match information sources and digital tools to the requirements of a specific task	- sometimes use digital tools to complete subject matter assignments that require research, filtering, and analysis of information - sometimes match information sources and digital tools to the requirements of a specific task

Standard 8.1 E 3-5				
Criterion: Use of digital tools to complete assignments that require research, filtering and analysis of information				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates the ability to use digital tools to complete assignments that require research, filtering and analysis of information	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	
Criterion: Ability to match information sources and digital tools to requirements of a task				
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Demonstrates ability to match information sources and digital tools to the requirements of a particular task	*Usually*	*Usually*	*Usually*	*Usually*	
	Always	*Always*	*Always*	*Always*	

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.	
E. Research and Information Fluency: *Students apply digital tools to gather, evaluate, and use information.*	

GRADES 6-8

- **Use a variety of search tools and filters to access multiple data bases** (for example, census data, the Bureau of Labor Statistics, the Departments of Education, Agriculture, Health & Human Services) in order to find information relevant to the solution of a real world problem.
- **Process the resulting data and create a report of results**

Focus for Instruction:
Giving students repeated opportunities to learn to use search tools and filters to access multiple data bases to accomplish subject-specific tasks; requiring students to process data they find using digital tools and create reports of results

Rubric Standard 8.1 E   6-8

Note that the distinction in levels of performance for this strand is based only on the degree of independence with which the student uses search tools and filers and explains, describes or analyzes the resulting data set to create a results report

DISTINGUISHED	STRONG	MODERATE	PARTIAL
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN - use AT LEAST TWO search tools and filters to locate multiple public, professional databases in order to find information relevant to the solution of a real world problem - explain, describe and/or analyze the resulting data set and create a report of the results	*WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN* - use AT LEAST TWO search tools and filters to locate multiple public, professional databases in order to find information relevant to the solution of a real world problem - explain, describe and/or analyze the resulting data set and create a report of the results	*WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE THE STUDENT CAN* - use AT LEAST TWO search tools and filters to locate multiple public, professional databases in order to find information relevant to the solution of a real world problem - explain, describe and/or analyze the resulting data set and create a report of the results	*WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT CAN* - use AT LEAST TWO search tools and filters to locate multiple public, professional databases in order to find information relevant to the solution of a real world problem - explain, describe and/or analyze the resulting data set and create a report of the results

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.
E. Research and Information Fluency: *Students apply digital tools to gather, evaluate, and use information.*
GRADES 9-12
• **Produce a position statement about a real world problem** ▪ Based on a systematic investigation of the problem ▪ AND synthesis of information from multiple sources • **Complete a research project focused on the impact on unethical use of digital tools** • **Present the results of the research to peers** *Focus for Instruction:* *Creating opportunities for students to investigate a real-world problem and requiring them to take a position on it and support it with their research; requiring students to do research on the ethics of digital tool use*
Rubric Standard 8.1E 9-12
Note that the distinction in levels of performance for this strand is based only on the degree of independence with which the student uses search tools and filers and explains, describes or analyzes the resulting data set to create a results report

DISTINGUISHED	STRONG	MODERATE	PARTIAL
WITH COMPLETE INDEPENDENCE, THE STUDENT CAN • participate in the investigation of an issue with peers by locating, organizing and – in some cases—analyzing relevant information • present a position statement on the issue to peers • demonstrate substantial understanding of the impact of unethical use of digital tools • present that perspective to peers	*WITH ONLY OCCASIONAL ASSISTANCE, THE STUDENT CAN* • participate in the investigation of an issue with peers by locating, organizing and – in some cases—analyzing relevant information • present a position statement on the issue to peers • demonstrate an understanding of the impact of unethical use of digital tools • present that perspective to peers	*WITH CONSISTENT, FREQUENT, REPEATED ASSISTANCE THE STUDENT CAN* • participate in the investigation of an issue with peers by locating, organizing and – in some cases—analyzing relevant information • present a position statement on the issue to peers • demonstrate a basic understanding of the impact of unethical use of digital tools • present that perspective to peers	*WITH SUBSTANTIAL AND SUSTAINED ASSISTANCE, THE STUDENT CAN* • participate in the investigation of an issue with peers by locating, organizing and – in some cases—analyzing relevant information • present a position statement on the issue to peers • demonstrate a basic understanding of the impact of unethical use of digital tools • present that perspective to peers

Standard 8.1E 9-12					
Criterion: Participation in the investigation of an issue with peers					
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Participate in the investigation of an issue with peers by locating, organizing and – in some cases—analyzing relevant information					
Criterion: Presentation of a position statement on an issue to peers					
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Present a position statement on the issue to peers					
Criterion: Demonstration of understanding of the impact of unethical use of digital tools					
OBSERVED BEHAVIOR/PERFORMANCE LEVEL	*Independently*	*Occasional Assistance*	*Frequent Assistance*	*Sustained Assistance*	*NOTES*
Present to peers a perspective on the use of digital tools that demonstrates understanding of the consequences of unethical use	*Basic understanding*	*Basic understanding*	*Basic understanding*	*Basic understanding*	
	Substantial understanding	*Substantial understanding*	*Substantial understanding*	*Substantial understanding*	

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate to create and communicate knowledge.			
F. Critical thinking, problem solving, and decision making: *Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.*			
K-2	**3-5**	**6-8**	**9-12**
*Note that all problems and issues engaged by students at this level <u>in all strands</u> of Standard 8.1 should be **authentic** and should lead to **significant questions** for students to investigate and attempt to answer.* *See the suggested demonstration of student learning in Strand A as a possible response to the "Indicator" in this strand. One of the tools students may learn to use could be a geographical mapping application.*	*Note that all problems and issues engaged by students at this level <u>in all strands</u> of Standard 8.1 should be **authentic** and should lead to **significant questions** for students to investigate and attempt to answer.* *See the suggested demonstration of student learning in Strand E as a possible response to the "Indicator" in this strand. The topic or problem that will serve as the focus of this activity could be a scientific inquiry.*	*Note that all problems and issues engaged by students at this level <u>in all strands</u> of Standard 8.1 should be **authentic** and should lead to **significant questions** for students to investigate and attempt to answer.* *See the suggested demonstration of student learning in Strand A as a possible response to the "Indicator" in this strand.*	*Note that all problems and issues engaged by students at this level <u>in all strands</u> of Standard 8.1 should be **authentic** and should lead to **significant questions** for students to investigate and attempt to answer.* *See the suggested demonstration of student learning in Strand D as a possible response to the "Indicator" in this strand.*